

## Rapid Strength Bedding Mortar

### Information

**Ultracrete M60** is a rapid set bedding mortar which is part of the **BBA/HAPAS** approved ironwork reinstatement system for use with all ironwork, conforming to BS EN 124.

### Technical

**Ultracrete M60** is supplied in 25kg bags or tubs and is a fully pre-mixed dry-pack and only requires the addition of water on site. It can be used from 10mm – 75mm in one pass, greater depths can be achieved by using a layer upon layer method. **Ultracrete M60** can be bulked out with the addition of up to 30% hard stone clean aggregate. The addition of aggregate will slow strength gain. Exceptional bond strength is achieved without the use of a primer.

### Preparation

All surfaces should be free from any contamination of oil, grease, paint etc. Remove all loose particles and work on a sound substrate. Pre-wet area with water.

### Mixing

**Ultracrete M60** should be mixed by forced action mixer or by vigorous hand mixing with an appropriate tool. A 25kg bag require approximately 3 litres of water. A stiff consistent mix with no slump should be achieved, ensuring all particles are well wetted.

### Placing

Always apply the bedding material over pre-wetted area. Once mixed the material should be applied to the supporting structure within 4 minutes and firmed well into position using a float allowing a 5mm excess thickness. Place the frame onto the bedding mortar ensuring it is fully supported, check that the frame does not overhang the mortar at any point (use suitable lifting equipment when positioning the frame).

Care must be taken to avoid voids in the bedding material under the frame, especially in the cover seating area. The frame should then be tamped into place ensuring the correct level is obtained. Any holes within the frame should be infilled and the flanges of the frame enveloped by a minimum thickness of 10mm of the bedding material. Exposed surfaces of the bedding material should be float finished, ensuring voids are filled. Remove loose materials and point the inside surface to a smooth finish. Once the bedding material has reached strength the backfill material can be placed.

### Precautions

- Wear protective clothing and wash tools frequently.
- Mix only enough material to apply in 4 minutes.
- Protect for 10 minutes from external water ingress.
- Never remix or add extra water.



### Features & Benefits

**Ultracrete M60** is the market leading rapid strength bedding mortar designed for the fast installation of street ironwork from temperatures as low as +1°C. Once applied, the road can be open to traffic after only 60 minutes.

- Part of the BBA/HAPAS approved ironwork reinstatement system.
- Can accommodate depths from 10-75mm in one pass.
- Excellent workability.
- Rapid strength gain, shrinkage compensated.
- Exceptional bond strength.
- Open to traffic in 60 minutes.
- Economical.
- Conforms to Department of Transport Design Manual for Roads & Bridges; HA104/02, suitable for all ironwork conforming to BS EN 124
- Manufactured under a Quality Management System BS EN ISO 9001: 2000.

### Recommended Applications

Bedding of street ironwork, rapid bonding of granite setts and flags, emergency repairs, bedding of kerbs.



### Related Products – BBA/HAPAS Approved

<b>Ultracrete QC10</b>	Rapid strength backfill concrete.
<b>Ultracrete IRR</b>	Permanent cold lay macadam (Type 2, 3 & 4 Roads).
<b>Ultracrete SCJ</b>	Bitumen cold joint sealer.
<b>Ultracrete PY4</b>	Polyester resin mortar.
also	
<b>Ultracrete Instaline</b>	Thermoplastic road marking repair.
<b>Ultracrete Instaband</b>	Skid resistant Overbanding tape.

## Health & Safety

Operatives should wear protective clothing and work in well-ventilated conditions. This product contains cement which, when mixed is alkaline and may in some cases cause skin irritation.

If product enters the eyes, wash thoroughly with clean water. If discomfort continues seek medical advice. In common with all powder products, the material should be mixed carefully, avoiding the raising of dust.

## Typical Lab Result – Ultracrete M60 (NAMAS Accredited)

Age	Compressive Strength Cured at 7°C N/mm <sup>2</sup>	Compressive Strength Cured at 20°C N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>
45 minutes	16.0	28.0	–
60 minutes	20.0	20.0	1.13
120 minutes	23.5	25.0	–
7 days	–	44.0	3.18
28 days	–	60.0	5.24
<b>Workability</b>	5 – 10 minutes*		
<b>Set Time</b>	20 minutes*		

\*Depending on temperatures – test carried out at 20°C. Cool temperatures retard, warm temperatures accelerate.



### Design Manual for Roads & Bridges

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3.11 Mortars for bedding ironwork such as manhole cover frames during repairs may be trafficked when the strength is expected to be 20 N/mm<sup>2</sup>. For rapid construction, this strength should be achieved within 2 hours.

<b>Packaging</b>	25kg bag or tub delivered on shrink wrapped pallets
<b>Storage</b>	Store in a dry place at temperatures between 5° – 30°C. Shelf life in correct conditions for sealed bags is 6 months. High temperatures and high humidity will lead to a reduced shelf life.
<b>Density</b>	2.220kg/m <sup>3</sup>
<b>Yield</b>	12.5 litres (approximately)
<b>Colour</b>	Brownish Grey

For updated Material Safety Data information visit [www.instarmac.co.uk](http://www.instarmac.co.uk)

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